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KATHMANDU PAANI

QUARTERLY BULLETIN

GOVERNMENT OF NEPAL, MELAMCHI WATER SUPPLY PROJECT SUB-PROJECT-02, KATHMANDU UPATYAKA KHANEPANI LIMITED, PROJECT IMPLEMENTATION DIRECTORATE

Message from PID

The major tasks of Kathmandu Upatyaka Khanepani Limited, Project Implementation Directorate (PID) are to build infrastructure in the Kathmandu Valley for a) equitable distribution of treated water brought from the Melamchi river and b) managing additional volume of wastewater generated from increased consumption of drinking water after completion of Melamchi Project.



Under the water supply component, PID is building infrastructure for distribution of water to be diverted from the Melamchi and treated at the Sundarijal water treatment plant (WTP). Laying of Bulk Distribution System (BDS) is almost complete. However, it won't be possible to conduct flushing, testing and commissioning of the whole of BDS consisting of large pipes and conduct hydrostatic tests unless sufficient water is available. This means the crucial task of checking full functionality and commissioning of the BDS can be conducted only after arrival of Melamchi water.

However, for sectional flushing of the BDS, PID plans to partially divert water from the upper reaches of the Bagmati this monsoon too. Meanwhile, construction of all 10 Service Reservoir Tanks (SRTs) except the one at Katunje is complete, while Distribution Network Improvement (DNI) work is making good progress despite the obvious difficulty of laying pipelines along narrow roads at densely inhabited areas. As of now, 1,013 km of DNI pipelines have been laid out of 1,132 km. Sectional pressure test has been completed and short run test initiated by using tanker water. However, full scale testing and commissioning of these pipelines would be possible only after arrival of Melamchi water.

Construction of environment-friendly wastewater treatment plants (WWTPs) is going on well along with installation of interceptors. The Guheshwori WWTP is nearing completion; construction of Sallaghari, Balkumari and Dhobighat WWTPs is moving ahead.

A matter of serious concern for us at this juncture is third-party damage to project infrastructure. If you see Melamchi Project pipelines and associated structures damaged or at risk or causing inconvenience, please call us at the toll-free number 1139.

We stand ready to pay heed to genuine concerns.

Tires Prasad Khatri
(Project Director)

Improvement in water, sanitation and sewerage management Set to transform whole of Kathmandu Valley



■ Road reinstatement underway after installation of water supply pipeline at Teku, Kathmandu, on May 3, 2019.

Kathmandu Valley Water Supply Improvement Project (KVWSIP)

KVWSIP, launched in 2011 with joint financing from the Government of Nepal (GoN) and the Asian Development Bank, is striving to develop a reliable, equitable and sustainable water supply system for providing water supply services in the Kathmandu valley.

With total budget of US\$ 265 million (initial financing of US\$ 130 million and Additional Financing of US\$ 135 million), KVWSIP focuses on the distribution of water from the treatment plant to consumers by constructing a 77 km BDS, 10 SRTs (total capacity 74,500m³), 1,115 km DNIs, besides increasing the number of household connections and improving operational efficiency as well as service

delivery of KUKL.

Under KVWSIP, water supply improvement works are gathering momentum in most of the areas within Ring Road.

Due to lack of financial resources, water supply improvement works are yet to begin in Tahachal, Chhauni, Swayambhu, Panipokhari, Maharajgunj, Baluwatar and Bishalnagar. After financing is made available, water supply improvement works will begin in these areas. Once Melamchi water arrives, these areas will be served by existing infrastructure till new ones are in place.

Separately, GoN has initiated the DNI work in Kapan area. For installation of approximately 250 km pipeline, it has allocated NRs 1.6 billion (US \$ 1.6 million).

Progress status of construction of water supply infrastructure

Under the scope of the PID, construction of BDS and SRTs is making satisfactory progress, along with works related to DNI.

Through a 77-km BDS pipeline, water treated at the Sundarijal WTP will be transferred to 10 SRTs (total storage capacity 74,500 m³) located at Arubari, Mahankal, Bansbari, Panipokhari, Balaju, Khumaltar (2 nos), Kirtipur, Katunje and Tigni. Construction of all SRTs except the one at Katunje is complete. The treated water conveyed to SRTs through BDS will be distributed through secondary and tertiary pipelines. As of now, around 74 km BDS pipeline has already been installed.

In the first stage, under DNI packages, around 1013 km out of 1,132 km pipeline has already been laid. Out of 1,17,141 household connections, 73,555 have been set up.

Flushing and testing of 28 km BDS pipeline has been completed, 35 km road has been reinstated out of 110 km. Summing up, PID has built adequate infrastructure necessary for supplying Melamchi water to households once it arrives at Sundarijal SRT.

Kathmandu Valley Water Supply Improvement Project		Target	Unit	Progress
1	Construction of BDS	77	km	74.54
2	Flushing and testing of BDS	77	km	28
3	Construction of SRTs	10	nos	9
Total capacity		74,500	m ³	88.11%
4	Distribution network construction work	1,132	km	1013
5	Household connections	1,17,141	nos	73,555
6	Road repair	110	km	35

Progress status of construction of valve chambers				
SN	Package	Target	Progress	Remaining
1	Package 1	65	57	8
2	Package 2	84	84	0
3	Package 3	36	36	0
4	Package 4	25	15	10
Total		210	192	18
Distribution Network Improvement				
1	Package 1	226	194	32
2	Package 2	254	219	35
3	Package 3	130	130	0

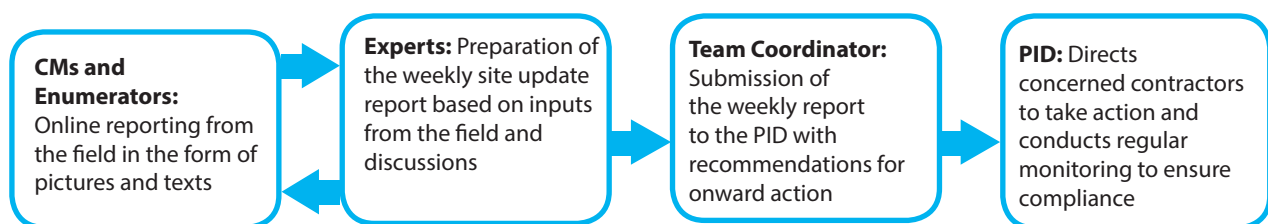
Project Readiness

PID has prepared DPR, including bidding documents, for distribution network system in remaining areas of Kathmandu within Ring Road (Kalanki, Swayambhu, Maharajgunj, Baluwatar and Dhumbarahi). The procurement process was also initiated, but it has been postponed for the time being in absence of financing and will start again once GoN and ADB agree on financing of Second Kathmandu Valley Water Supply Improvement Project with retroactive financing. Estimated cost of two contract packages for laying 520 km pipes in this area is \$60 million.

PID has prepared DPR and bidding documents for expansion of distribution network in Mandikhatar, Jorpati, Chabhil, Bouddha, Pepsicola, Madhyapur Thimi, Bhaktapur and Kirtipur outside Ring Road. The project can be implemented once financing is available. The total length of the pipeline will be 1,250 km (approx) and estimated cost of these works is US \$220 million. With GoN financing, PID has prepared DPR for expansion of DNI in Balkot, Imadol, Mahalaxmi, Gwarko, Khumaltar, Dholahiti, Sunakothi, Bagdol, Bhaisapati and Mulpani (approximately 550km).

SPECIAL REPORTING SYSTEM

PID has launched a new reporting system to facilitate swift action based on inputs from construction sites. Based on daily inputs received online from community mobilisers (CMs) mobilised on the sites, experts prepare weekly situations report covering water supply and wastewater components, identify most vulnerable sites and present the findings to the PID. The system is designed to address public grievances in a better manner and take swift corrective action in critical situations.



A SCHEMATIC DIAGRAM OF THE REPORTING SYSTEM

Kathmandu Valley Wastewater Management Project (KVWWMP)



■ A view of the modern, environment-friendly wastewater treatment plant (WWTP) that is under construction at Guheshwori, along with the existing WWTP.

The KVWWMP was launched in 2013 with loan assistance from the Asian Development Bank, OPEC Fund and Government of Nepal. It aims to improve access to, and efficiency of wastewater services for the residents of the Kathmandu Valley by (1) rehabilitating and expanding sewerage network (2) modernising and expanding existing wastewater treatment plants (WWTPs) at different locations within the valley.

Under this project, around 29 km of interceptor pipelines have already been laid along both banks of Hanumante, Manohara and Khasyangkhusung rivers out of around 44 km. In parallel, High Powered Committee for Integrated Development of the Bagmati Civilisation

has installed interceptors along Bagmati, Bishnumati and Rudramati and is installing wastewater collection laterals as well. Wastewater collected from households will be transferred through these interceptor pipelines to modern, environment-friendly WWTPs being constructed under this project in Sallaghari (14.2 MLD), Balkumari (17.5 MLD), Dhobighat (74 MLD) and Guheshwori (16.2 MLD) for treatment. Wastewater treated at these WWTPs will be discharged into rivers. These WWTPs, under the first phase, will have total treatment capacity of 130.81 MLD.

Currently at Guheshwori, a conventional WWTP with installed capacity of 16.2 MLD is operating partially and its rehabilitation is going on.

Environment-friendly WWTP at final stage of construction

A modern, environment-friendly wastewater treatment plant (WWTP) is in the final phase of construction at Guheshwori as part of rehabilitation and expansion of the existing WWTP located there.

The new WWTP will be equipped with modern and environment-friendly features like deodourisation unit, Activated Sludge Process, anaerobic digester and automatic control.

After rehabilitation and expansion, the entire facility will be able to treat on a daily basis 32.4 million litres of wastewater released from areas located above Guheshwori, like Bouddha, Gothathar and Jorpati, directly benefiting estimated population of around 4.54 lakh. Rich in oxygen, the treated water will be discharged into the Bagmati river, creating a suitable environment downstream for aquatic beings like fish. Treated water can also be used for irrigation, cleaning and industrial cooling.

The unit will also generate 320 KW/hour of energy, fulfilling partial energy requirement of the WWTP, apart from producing sludge cake (7 tonnes/day) that can be used as fertiliser to increase farm yields. The discharge of relatively clean water into the Bagmati river is also expected to help revive the glory of Bagmati civilisation.

	Major works	Target	Units	Progress
1	Installation of interceptors along river banks			
	Installation of interceptors along both banks of Hanumante	25.35	km	16.2
	Installation of interceptors along both banks of Manohara	11.36	km	5.61
	Installation of interceptors along both banks of Khasyangkhusung	7.68	km	7.24
2	Construction of wastewater treatment plants (WWTPs)		percent	
	Guheshwori WWTP (32.4 MLD)		percent	92.8
	Sallaghari (treatment capacity 14.2 MLD), Dhobighat (7.4 MLD) and Balkumari (17.5 MLD) WWTPs		percent	10.1



Inter-school speech competition organised to mark World Environment Day

On the occasion of the World Environment Day (June 5) themed “Air pollution”, PID organised an inter-school speech competition at Ratna Rajya Secondary School, Baneshwor. Students from 16 schools gave their powerful presentations at the speech competition titled “Air Pollution and Its Impact on Human Health”.

The participating students highlighted the impact of greenhouse gases on human health, problems facing underdeveloped countries like Nepal due to global warming, the need to take environmental well-being into account while undertaking development works and hand over a healthy planet to the new generation.

At the competition, Shristi BK of Vishwa Niketan Secondary School (Tripureshwor) stood first, Sirjana Ghodasaini of Nandi Secondary School (Naxal) stood second and Anish Pokharel of Ratna Rajya Secondary School stood third, whereas Sadikshya

Mainali of Pashupati Mitra Secondary School (Chabahil) and Shristi Gautam of Tarun Secondary School (Balaju) bagged consolation prizes.

Chief of the PID’s Safeguards Unit Laxmi Pant and exam coordinator of Ratna Rajya Sachhindra Koirala gave away the awards to the top contestants and certificates of participation to other participants.

Pant expressed happiness over encouraging participation of female students in the contest and said PID was expediting Melamchi-related construction works by taking environmental issues into account.

PID has been organising various inter-school competitions to mark international days like the World Toilet Day, World Water Day and World Environment Day along with regular school awareness programmes, in coordination with schools concerned. Before organising such contests, community mobilisers and experts discuss and agree on ways to conduct them.

After that, community mobilisers and experts orient students and give them relevant materials to better prepare them for the competitions.

They also draft and help design banners as well as certificates to be distributed to participating schools and top contestants. An independent panel of judges sets the criteria and selects the winners of such competitions.

Some of the objectives of such contests are a) to bring behavioural changes in society by mobilising students as the agents of change in the WASH sector b) to promote Gender Equality and Social Inclusion in Melamchi project areas within the valley by boosting the participation of female students and marginalised students c) to inform communities through students about the status of construction of Melamchi project components in the Kathmandu Valley and d) to promote students’ participation in extra-curricular and co-curricular activities.

Our Request

Ministry of Water Supply and Project Implementation
 Directorate apologise for inconveniences faced by the public during the implementation of the mega-project and appeal for everyone’s support in this transformative endeavour.

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